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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/802,027

03/17/2004

Yukio Shoji

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EXAMINER

DRODGE, JOSEPH W

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

06/30/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/802,027	Applicant(s) SHOJI ET AL.	
	Examiner Joseph W. Drodge	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 May 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action, amendments and clarifications to the rejections made in this Final office action are in bold-face and are underlined:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Stutzman patent 5,271,850.

Stutzman discloses [for claims 1 and 8] inflow chamber (space bounded by flow baffle 16, housing sidewall 18 and top cover 12 of the filtration unit 10 including annular space 29 outside of peripheral jacket 27) communicating with inlet 7 from which fluid flows, outflow chamber 25 communicating with outlet 15, cylindrical filter element 20 that is comprised of layers of fibrous media (column 3, lines 52-63), the outside most-layer proximate jacket 27 comprising it's outer peripheral surface and inner-most layer proximate cartridge bore outer surface comprising inner peripheral surface , and a flow-directing structure 26 made of layers of wide-mesh horizontal screen extending radially outwardly from central end caps 24 and 28 (column 3, lines 59-62, column 5, lines 2-5 and column 6, lines 5-8). A portion of the flow through the inflow chamber is upwards through the outer and central layers of the filter element in a rising flow and is then redirected radially inwards so as to then fall upon and enter the filter element at an inner peripheral surface 34 of the filter element. The flow-directing structure 26 can also be considered a guide for claim 8. These claims do not require the entirety of the flow to flow in any particular

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flow pattern or specify the direction of flow of flow portion as it enters the filter element at said inner peripheral surface.

Regarding claim 2, the upper portion of the inflow chamber can also be considered an inlet to a downwardly directed flow through the outer layers of the filter.

For claim 3, the flow-path formed by layers of screen of mesh 26 are also of a narrowed cross-section.

For claims 4 and 5, flow between baffle 16 and lower extent of the filter layers has a rising flow.

For claim 6, the inflow chamber has a generally stream-lined shape, especially portion comprising annular chamber 29.

Claim 10 is rejected under 35 U.S.C. 102(b) as being anticipated by Campo patent 3,675,776. Campo discloses inflow chamber 22/A, outflow chamber 24/B, filter element 28 comprising a plurality of integral, immediately adjacent layers 60 and 61 that each comprise target trapping/adsorbing elements that act as fall-off preventing elements that are of dis-similar materials and hence are necessarily and inherently of different pore or mesh sizes (see column 3, lines 35-60). Claim 10 does not specify the particular orientation of the target trapping and falling-off element layers. Filter element layers may of material as diverse as plastic, activated carbon/charcoal and zeolite (column 3, lines 34-58).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 7,9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stutzman in view of Budzich. These claims differ in requiring a differential pressure sensor to detect pressure differences between inflow chamber and outflow chamber. However, Budzich teaches a differential pressure sensor , whose details are extensively discussed at (Abstract, column 2, lines 35-41). It would have been obvious to have incorporated a differential pressure

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sensor of Budzich into the Stutzman oil filtering device, to ensure timely opening of the drain outlet in the bottom of the filter housing, to avoid entrainment of separated water and particles into the flow of oil fluid through the filter.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Campo patent 3,675,776 in view of Kuh et al patent 4,681,677. Claim 11 also differs in requiring a differential pressure sensor to detect pressure differences between inflow chamber and outflow chamber. However, Kuh teaches a differential pressure sensor, whose details are discussed at (Abstract, column 3, lines 55-64). It would have been obvious to have incorporated a differential pressure sensor of Budzich into the Stutzman oil filtering device, to ensure timely changing of the filter element or filter element cleaning when it has become clogged and no longer provides adequate flow or filtration capacity.

Applicant's arguments with respect to claims 1-12, filed on May 14, 2008 have been fully considered but they are not persuasive.

It is argued that the fluid does not fall upon or enter the filter element (cartridge) at a cylindrical shape inner peripheral surface as in the present invention. It is submitted that in Stutzman, a portion of the flow does rise upwards through the annular space 29 to rise above the filter element and then turn radially inward and fall back down toward the filter media of the filter element, a portion of this falling back down flow falling upon and entering the filter element media adjacent to or at the flow-directing surface 34, which is inward of most of the filter media and is cylindrical.

It is argued that there is no structure in Stutzman arranged to induce radial flow. The orientation of the outer surface 27 of filter element / filter element shell, with housing side wall 18, and top cap 16 together induce such upward and then radial flow segments.

With regard to claim 10, it is argued that Campo does not teach or suggest any sizes (pore or mesh sizes) for the elements of the filter in relation to the size of target foreign matter. However, column 1, lines 15-26 teach the desirability of removing a variety of impurities from drinking water including contaminants that impart unpleasant tastes, odor and color or harden the water or impart toxicity. It is axiomatic that the filter element(s) would have a smaller pore size than those impurities so as to prevent their passing into the drinking water.

Additionally with regard to Campo, it is argued that the teaching in Campo of capability of reversing orientation of filter element teaches away from falling-off preventing element being on the side surface of the inflow path. Such ability to reverse filter element orientation has little bearing on claim patentability, claim 10 does not specify which filter element is outside of the other element. Claim terms "side surface" could refer either to "...inside" or "outside..." and "trapping ...within the fall-off preventing element" does not preclude the target trapping element from being either inside of or outside of the fall-off preventing element.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Drodge at his direct government telephone number of 571-272-1140. The examiner can normally be reached on Monday-Friday from approximately 8:30 AM to 12:30 PM and 2:00 PM to 6:00 PM.

Alternatively, to contact the examiner, send a communication via E-mail communication to the Examiner's Patent Office E-mail address: "Joseph.Drodge@uspto.gov". Such E-main

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communication should be in accordance with provisions of MPEP (Manual of Patent Examination Procedures) section 502.03 & related MPEP sections. E-mail communication must begin with a statement authorizing the E-mail communication and acknowledging that such communication is not secure and will be made of record, under Patent Internet Usage Policy Article 5. A suggested format for such authorization is as follows: "Recognizing that Internet communications are not secure, I hereby authorize the USPTO to communicate with me concerning any subject matter of this application by electronic mail. I understand that a copy of these communications will be made of record in the application file.

Additionally, the examiner's supervisor, David Roy Sample, of Technology Center Unit 1797, can be reached at 571-272-1376.

The formal facsimile phone number, for official, formal communications, for the examining group where this application is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either private PAIR or Public PAIR, and through Private PAIR only for unpublished applications. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JWD


June 27, 2008

/Joseph W. Drodge/

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Primary Examiner, Art Unit 1797

<div>Application Number</div> <div></div>	Application/Control No.	Applicant(s)/Patent under Reexamination	
	10/802,027	SHOJI ET AL.	
	Examiner	Art Unit	
	Joseph W. Drodge	1797	